

Hadley Public Schools
Three Year Technology Plan
2009-2012



The Hadley Public Schools, in partnership with the community, will aim to provide a safe and supportive environment. We will strive for excellence by providing high quality educational opportunities for diverse learners to achieve their individual potentials. By engaging in meaningful activities, our students will be able to access, question, apply, integrate, evaluate, and communicate essential knowledge. Furthermore, the schools will help prepare students to act with integrity and to assume a contributory role as productive members of our democratic society

History of Technology in Hadley Public Schools

During the 2001 - 2002 school year a major commitment was made to upgrade the technology infrastructure. Two science laboratories in Hopkins were upgraded to include up-to-date computers and scientific measuring equipment from Pasco Scientific. This software/hardware combination allowed students to perform scientific measurements and visually observe the results in the form of real time displays and graphs. Over the summer of 2002 the computer laboratories of Hopkins Academy and Hadley Elementary School were upgraded with 50 new Intel Pentium 4 computers. This was a vast improvement in performance over the previously installed equipment. Still the Internet speed was not adequate, the network configuration was out-dated and hard to manage and the many obsolete computers were still in use.

Over the spring and summer of 2003 a major revamp of the network infrastructure was undertaken. New servers were installed, a 3 Mega bit per second Internet connection was installed from the local cable Internet service provider, and the network became one logical network. With the new structure students were able to access the Internet at a reasonable speed and they were able to log into their own network storage folder. All users could share networked printers. New computers were installed for teachers at Hadley Elementary School replacing computers that were past their normal life expectancy and usefulness. With the upgrade every classroom had at least one up-to-date, fast, and reliable computer.

With the goal of continually moving forward and improving the infrastructure the Hopkins Academy, teachers received new computers over the summer of 2004. During the 2004-2005 school year a major improvement of much higher capacity networking equipment was installed between the central office and Hadley Elementary School. The previous connection was limited to the physical properties of the Hadley installed and owned fiber cable connecting the two buildings and the low performing hardware used for connections at each end. The upgrade more than doubled the capacity of the Hadley Elementary School (HES) to central office connection. The HES computers were now able to run networked applications at a reasonable speed and the Internet access speed was no longer the bottleneck that it had been. As part of the same project all remaining network hubs were replaced with much higher performing network switches.

With the tremendous improvements in infrastructure over the past few years the groundwork has been laid for Hadley Public Schools to take advantage of the opportunities technology provides. The few remaining obsolete computers are due to be removed from service in the near future. The ratio of computers to students has improved to three students for one computer. When executing programs or accessing the Internet the response time is excellent. Specialized applications are available in the Hopkins Academy Art Room, chemistry labs, and the journalism room. Down time for the network or individual computers is

minimal and is the exception rather than the norm. In Hadley there are many historic old houses that stand on solid foundations that have lasted centuries. In Hadley Public Schools the technology foundation has been laid for teachers, staff and students to build upon and take advantage of the many opportunities provided by a solid technology infrastructure.

CURRENT DISTRICT EDUCATIONAL TECHNOLOGY STATUS

Since the previous Technology Plan the major technology impetus has been the move to the Internet. With a solid infrastructure in place the Hadley Public Schools campus is able to take advantage of the ever-increasing availability of instructional content that is available on the Internet. In addition to assistance to teachers and administrators there is an increasing availability of services and applications via the Internet that aid in the delivery of technology.

Over the summer of 2009 the speed of the Internet connection was increased to 20 MPBS down and 2 MBPS up. This was double the previous speed at a reduced monthly charge. Also improved were network switches in Hopkins Academy network closets to deliver both Internet and server data at a higher rate.

Over the previous two school years there were several incidences of major component failures that were costly to rectify. With these expenditures in mind it was decided to simplify the server requirements and move to an Internet based email, GMail from Google, Inc. In addition to the e-mail provided by Google, they offer a suite of applications that are web based. These applications are a direct competitor to the traditional client based office applications offered by Microsoft, Inc. Being web based, these applications are available to all staff and teachers from anywhere there is access to the Internet. An additional service subscribed to from Google was their email archiving, which is provided by a recently acquired Google subsidiary, Postini. With email archiving in place HPS is now compliant with statutory requirements of the State and Federal governments.

Continuing with the demands of keeping current with computers there have been significant improvements to desktop units for Hopkins Academy teachers. The move to 64 bit processor architecture with Windows Vista and Windows 7 operating systems along with 6 – 8 GB of memory has provided teachers and students with state-of-the-art systems.

Goals and Strategies

The goals of the administration and the Technology Committee of Hadley Public Schools for the period of 2009 through 2012 include:

- a) Increasing the usage of the internal network by both staff and students to take advantage of the flexibility a network provides in accessing application tools, information sharing and exchange, and data storage.
- b) Continue to enhance the computer infrastructure to gain access to learning tools that can benefit all staff and students.
- c) Increase the awareness by staff and students of the Internet as a source for information, for learning tools, for research, and for all forms of communication.
- d) Implement tools to increase the level of communication between students, teachers, and parents. Enable the sharing of student related educational data such as assignments, progress reports, and grades. Provide open and easy to use communication links between all parties.
- e) Increase the district communication with the community as a whole.
- f) Increase the internal and external integration of the district processes, information, and communications.
- g) Maintain or improve the current infrastructure having computers, servers, and networks performing at a 99% uptime rate. Maintain the infrastructure at a level of performance equal to the capabilities of the installed equipment.

A2. Strategies for the period of 2009 – 20012

Project 1. – Increase the use of network printers to the whole campus, replacing the ink jet printers that are problematic and their cost per printed page is high due to expensive replacement cartridges.

While the initial results of the inkjet printers that were installed several years ago were very satisfactory, over time they proved to be a high maintenance item. As a result, in FY 2009-2010 the inkjets are being phased out and replaced with a standardized model of laserjet printers that will greatly reduce the cost and complexity and increase the reliability of in-classroom printing.

Project 2. – Implement the use of Smart Boards™ or Promethean™ boards in subject area classrooms that would benefit from the technology (Present goal is to have 6 at Hopkins Academy and 4 at the Hadley Elementary School by 2010).

The advantageous of the interactive white boards continue to impress so the effort of outfitting as many rooms as fiscally possible continues. In HES an additional 3 boards have been installed and Hopkins Academy is projected to increase by six boards by the end of FY09-10.

Project 3 – Implement e-mail accounts for all students. This would significantly increase communication between teachers and students.

With the move to GMail as the provider concerns about capacity and management demands have been relieved. The Hopkins Academy student body will have individual email accounts by the end of FY11.

Project 4 – Replace all computers that are not capable of running current technology programs.

All of the older low level computers have been phased out of both school buildings. Desktop computers being purchased are state-of-the-art with 64 bit processors, extensive memory, and high quality LCD monitors. The effort to replace the older computers with currently available mid-range capacity computers.

Project 5 - Implement appropriate software applications in the classroom. The Technology Committee has created a task to review the software requests of teachers in grade levels and then recommend the implementation priority of the selections. The priorities will be based on the perceived benefit, the quantity of students benefiting, the deficiency, if any, in subject area the application addresses, and the cost of the application.

The implementation of new LAN based software has slowed if not stopped due to the extensive options provided by Internet based applications. Teachers are finding there are many options for instructional materials available on the Internet, many of them at no charge.

Project 6 – Continue to provide training to Hadley Public Schools staff in the use of computers. The training is based on the MA DOE Teacher Standards and Star chart.

Instruction of teachers on technology is being provided on an as-needed basis. The one exception area of this is in the use of intelligent white boards where instruction is being provided as part of the installation process for the teachers receiving them.

Project 7 - Increase the accessibility to technology and computers in both the Hopkins Academy building and Hadley Elementary School.

The recent expansion of a new computer laboratory in Hopkins Academy has increased the number of desktop computers available to students. The next step would be to install a building wide wireless network so that the building can accommodate laptop computers.

District Technology Team

The District Technology Team is comprised of members of the teaching staff of Hopkins Academy and Hadley Elementary School. The District Technology Specialist chairs the Technology Team.

Members of the Technology Committee during the 2009-2010 school year are:

Mike Duffy	Technology Specialist/Chair
Gerry Bonneau	Librarian
Connie Douglas	HES Phys. Ed. Teacher
Carol Pineo	HES Art Teacher
Beth Cooke	Hopkins Sped Teacher
Dr. Nicholas Young	Superintendent of Schools
Ms. Diana Bonneville	Principal, Hopkins Academy
Mr. Phillip DiPietro	Principal, Hadley Elementary School

Budget

The current technology budget for the 2009/2010 school year.

Supplies	\$19,721
Contracted Services	\$18,000
Salaries	\$46,000

The projected technology budget for the years of this plan are:

2010 – 2011

Supplies	\$20,312
Contracted Services	\$18,900
Salaries	\$47,380

2011 – 2012

Supplies	\$20,922
Contracted Services	\$19,845
Salaries	\$48,800

2011 – 2012

Supplies	\$21,549
Contracted Services	\$20,847
Salaries	\$50,265